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# Free Rider and Secondary Grammaticalization: Toward a New Theory of Grammaticalization

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## Abstract

In this paper, I claim that there are two kinds of elements which are involved in grammaticalization. One is a contributor which triggers a given change or contributes to the change, while the others are “free riders”, which are grammaticalized thanks to the contributor. I take up the issue of the emergence of a determiner system, i.e. a DP in English. The articles, definite *the* and indefinite *a/an*, are believed to have developed from the Old English demonstratives *se/seo* and the numeral *an* ‘one’ (cf. Sommerer 2011). This is an instantiation of grammaticalization (Hopper and Traugott 2003). I assume that a syntactic determiner system, a DP (Abney 1987), was absent in Old English.

More specifically, I make two proposals:

- ① grammaticalization should be defined within the framework of functional category emergence described below, suggesting a unidirectionality of language change;
- ② grammaticalization progresses in two stages: a primary grammaticalization and a secondary one.

The items involved in secondary grammaticalization are “free riders”, which are grammaticalized due to contributors. Free riders are grammaticalized by making use of the space created by contributors. The lexical elements that contribute to creating a new functional space in the structure are contributors. That is, contributors cause the primary grammaticalization. I argue that the contributors in the DP emergence grammaticalization are the demonstratives *se/seo* and the free rider is the numeral *an* ‘one’ in Old English.

It is well known that the indefinite article appeared later than the definite article in English. I argue that this later emergence can be accounted for if we assume that grammaticalization progresses in two stages. The emergence of the indefinite article *a/an* is an instance of secondary grammaticalization. Hence, the ancestor of the indefinite article, i.e. Old English numeral *an* ‘one’, is a free rider that was grammaticalized in the space created by the contributor *se/seo*. The emergence of the definite article *the* is an example of primary grammaticalization. Hence there is a time difference in appearance between the two determiners.

This hypothesis also leads to a whole review of existing grammaticalization theory. I will propose a new theory of grammaticalization. Assuming that grammaticalization is a structural change as argued by Roberts and Roussou (2003) and Gelderen (2004), I claim that grammaticalization means creating a functional space in a given structure.

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## Chapter 1 Introduction

Grammaticalization is a widely discussed topic which has received much attention from

researchers in related fields, including typologists as well as historical linguists. The term “grammaticalization” goes back to Meillet (1912), but the idea had already been proposed by Humboldt in the nineteenth century. Since then, the topic of grammaticalization has attracted increasing attention. Some contemporary linguists like Lehmann (1982), Heine, Claudi, and Hünemeyer (1991), Givón (1991), Heine and Kuteva (2002) and Hopper and Traugott (2003) have provided detailed discussions of this topic, with grammaticalization from the diachronic perspective being hypothesized to be a unidirectional phenomenon.

Grammaticalization, by their definition, is the process whereby lexical items and constructions come in certain linguistic contexts to serve grammatical functions, and once grammaticalized, continue to develop new grammatical functions. In more familiar terms, grammaticalization is the process in which content words or open class items tend to become grammatical function words.

As I have discussed in Osawa (2017), this process is an important part of grammaticalization, but, this category change leads to a more important change in the nominal structure. Following Roberts and Roussou (2003) and Gelderen (2004), I propose that grammaticalization brings about structural change in a given structure. That is, grammaticalization is a syntactic phenomenon.

In this paper, I make two proposals:

- ① grammaticalization should be defined within the framework of functional category emergence described below, suggesting a unidirectionality of language change;
- ② grammaticalization progresses in two stages: primary grammaticalization and secondary one.

I will focus especially on secondary grammaticalization, which, compared with primary grammaticalization, has become the target of research rather recently and about which there remains much to be discussed.

In the next chapter, I summarize preceding studies on grammaticalization. In doing so, I will refer to Gelderen (2004) and Roberts and Roussou (2003), which propose that grammaticalization should be analysed as a syntactic phenomenon, in line with my proposal. My view of grammaticalization will follow in chapter 3. In chapter 4, I will give a detailed discussion of secondary grammaticalization. Chapter 5 concludes my discussion.

## **Chapter 2 Preceding studies on grammaticalization**

### **2.1. Grammaticalization theory approach**

Grammaticalization is said to be “the process by which grammar is created” (Croft 2006: 366). Although this definition is, as Lehmann (2005: 155) argues, too wide, this is a good reflection of multifaceted characteristics of grammaticalization. As touched upon in the Introduction, the prototypical and widely accepted view is that grammaticalization is defined as the development from lexical to grammatical forms (i.e. grams or function words) and from grammatical to even

more grammatical forms (Heine and Kuteva 2002:2; Heine 2003: 163).

Grammaticalization involves the following main stages of (diachronic) development:

$$(1) \quad L > G_1 > G_2 > G_0$$

where L = lexical form,

$G_1$  = grammatical form

$G_2$  = more grammatical form

$G_0$  = grammatical form which has no more grammatical meaning

">" = "develops diachronically into". (Heine 2003: 163)

Accordingly, grammaticalization theory presupposes the unidirectionality of the above-mentioned development. The L-stage precedes the  $G_1$  stage, and so on.

Technically, grammaticalization involves four main interrelated mechanisms:

(2) Four mechanisms:

- (i) semantic bleaching, or de-semanticization — loss in meaning content,
- (ii) extension or context generalization — use in new contexts,
- (iii) decategorization — loss in morphosyntactic properties characteristic of lexical or other less grammaticalized forms, and
- (iv) erosion or "phonetic reduction" — loss in phonetic substance.

(Heine and Kuteva 2002: 2)

This approach assumes that grammaticalization is a universal, gradual, long-term change with an impetus of its own.

Although this idea of grammaticalization captures a very important aspect of grammaticalization and these above-mentioned processes are all characteristic of grammaticalization, I would like to claim that there is another aspect of grammaticalization.

## 2.2. Minimalist approach

In the previous section, I introduced the "Grammaticalization theory approach" to language change. In this approach, grammaticalization is largely confined to morphological processes in the historical change. There has been a rift between those traditional grammaticalization theorists and generativists who are working within the Principles and Parameters framework and more recently within the Minimalist framework. According to generativists, there is no universal, gradual, long-term development with an impetus of its own, that is, the process considered to be "grammaticalization" by grammaticalization theorists. I will return to this issue in the next section.

However, a few generativist researchers who are interested in historical studies have tried to analyze diachronic language changes. Roberts and Roussou (2003) argue, in the context of the Minimalist Program, that grammaticalization is a regular case of parameter change (Lightfoot

1991), not a separate and unique type of change. Consequently, grammaticalization is claimed to be epiphenomenal.

- (3) [...] grammaticalization is a regular case of parameter change not fundamentally different from other such changes. (Roberts and Roussou 2003: 2)

These researchers adopt an approach to clause structure where there is no parametric variation in the set of functional heads that appear in clause structure. For them, grammaticalization is defined as the creation of new functional material through the reanalysis of lexical material or existing functional material. Hence, according to Roberts and Roussou (2003), languages differ in whether these heads are realized phonetically or not.

Gelderen (2004), also in the context of the Minimalist Program, claims that grammaticalization is driven by two Economy Principles. The first is the Head Preference or Spec to Head Principle, saying “Be a head, rather than a phrase.” Checking between two heads is thought to be more economical than checking between a Spec and a head. Thus, pronouns, which unlike nouns have the ability to function as heads, prefer to do just that, rather than being a full phrase. This Principle can, according to Gelderen (2004), explain the origin of *that* as a relative pronoun. It is well known that the Present-day English relative pronoun *that* developed from Old English demonstrative pronoun *þæt*, i.e. singular, neuter nominative and accusative form. The following change occurs (Gelderen 2004: 82):



The Specifier *that* becomes a head after 1050 and after that change, a new *wh*-specifier is introduced, starting in the 12th century, for reasons unrelated to Economy (Gelderen 2004: 82).

With respect to diachronic change and grammaticalization, words go from Spec to head and not vice versa. The second principle (Late Merge Principle) says “Merge as late as possible.” The reasoning behind this principle is that it is less economical “to merge early and then move” than “to merge late.” For example, if a verb does not contribute to argument structure any more (that is, is auxiliaryized), it will prefer to move up the tree to a higher position rather than stay in place (merge early) and move up later.

According to Roberts and Roussou (2003), parametric change is a main cause of language change, but, this raises a problem since language changes sometimes take a long time to complete, while parametric changes occur abruptly. Furthermore, there are a large number of arguments against their assertion that “there is no parametric variation in the set of functional heads

(i.e. D, T, C, etc.)”; see Kiparsky (1968) Thráinsson (1996) and Osawa (2003). On this point, I prefer Gelderen’s (2004) Economy Principle approach. Anyway, the two studies are presently heralding research on grammaticalization from a syntactic viewpoint.

## **Chapter 3 My view of grammaticalization**

### **3.1. Criticism against Grammaticalization**

The traditional grammaticalization theory introduced in chapter 2 assumes that grammaticalization is a universal, gradual, long-term change with an impetus of its own. Many generativists reject the idea that there are tendencies or pathways, or rather “drift”, in diachronic change.

Their criticism is based on the assumption that all approaches must be basically synchronic in nature, with emphasis on the formal structure of the grammar of the speaker/language learner, a grammar which has discrete rules and formally defined categories. All language learners construct their grammars afresh without taking account of processes that started long before their lifetime but they proceed on the basis of the language spoken around them (Fischer et al., 2000: 285). Hence, children could not recognize “a master plan” of long-term change. There is no such thing as “language change”, but “grammar change”.

In brief, they suggest that it is not necessary to posit a special theory of change called “grammaticalization” theory. The changes that happened in language history can be analyzed in terms of synchronic grammar rules, using formal categories. The main locus of grammar changes is the language acquisition process of each new speaker/learner. “The language acquisition process and communication between speakers are by their very nature synchronic, and we therefore cannot see that there is room for a separate and ‘independent’ process of grammaticalization, since this would imply that speakers and language learners recognize a master plan of long-term change in progress” (Fischer et al., 2000: 292).

This view is apparently opposed to my view of language change, namely that there is a unidirectionality in language development and that there is some potential inherent in languages to trigger the change. I agree with them in terms of the synchronic approach to diachronic change. In my framework, grammaticalization can be explained more adequately as the mechanism of functional category emergence, i.e. the emergence of functional categories of previously existing morpho-semantic features to head their own projection in the syntactic structure. This mechanism is supposed to be working in the acquisition domain. Therefore, the changes that happen can be analyzed in terms of synchronic grammar rules, using formal categories.

### **3.2. My view of grammaticalization in detail**

As touched upon in the Introduction, I propose that grammaticalization should be defined within the framework of functional category emergence, suggesting a unidirectionality of language change.

In my view, grammaticalization should be viewed as functional category emergence. I suggest that languages typically start as lexical-thematic without any functional categories, and the

emergence of a new functional category is the characteristic mark of a transition from one stage to the next both ontogenetically and phylogenetically. In historical terms, this process is effected by the grammaticalization of previously existing morpho-semantic features as syntactic functional categories. The lexical-thematic nature means that all constituents in a given language belong to lexical categories (i.e. NP, VP, AP), and all sister constituents are thematically inter-related. Functional categories such as DP, CP, or TP do not exist or develop only limitedly in such a language.

The drastic change of the English language can be better explained in terms of the emergence of functional categories. I argue that the history of English is a good instantiation of this shift from a lexical to a functional stage. Accordingly, this process is definitely unidirectional.

This shift can be described as the reallocation of duties from morphology to syntax. The diachronic development of language is then to be viewed as a change in some domain in the trading relations between morphology and syntax. In the case of nominal phrases, the semantic task of identifying the referentiality of nouns which was taken care of by morphology has come to be taken over by syntax, i.e. by a functional D. I will briefly touch on this issue later. My overall claim is that there is a unidirectionality of language change in that every change targets syntax (cf. Osawa 2003).

This notion of grammaticalization can provide solutions to problems or possible counter-examples such as “lexicalization” or “de-grammaticalization”, since in my framework true counter-examples would be cases in which, for instance, some task which was done syntactically before has come to be taken care of morphologically, or, for instance, items in certain languages which started as purely grammatical functional categories without any intrinsic meaning came to acquire concrete meaning gradually, and ended up as substantive categories (i.e. content words). Although there has always been the possibility of counter-examples such as these, as far as I know, no such systematic changes have been attested.

Furthermore, I claim that grammaticalization is the creation of a new space/position in a given structure (cf. Osawa 2017). I do not deny the traditional notion of grammaticalization, but if we look at the grammaticalization process mentioned above, there is another aspect to it. That is, the grammaticalization process brings about a change in the nominal structure. In the next section, I will discuss the emergence of a DP as an example of this type of grammaticalization.

### 3.3. The emergence of a DP: From an NP to a DP

Based on Osawa (2007, 2009, 2017), I will give a brief description of the emergence of a DP in English. There was no D system (hence no articles) in Old English and morphological case did the same task as a D (eterminer). The task is to pick out a particular referent of an NP in the course of a particular utterance and to change the NP into a DP. In the absence of a DP, morphological case can do the same task, i.e., to identify the referentiality of a nominal.

The articles *the* and *a/an* are believed to have developed from the Old English demonstrative *se/seo* (and their variants) and the numeral *an* ‘one’ (cf. Sommerer 2011). This is an instantiation of grammaticalization (Hopper and Traugott 2003). Following Gelderen (1993), Abraham (1997)

and Philippi (1997), I assume that Old English had no obligatory functional determiner system DP, unlike Present-day English, and the DP emerged in the Middle English period and became established by around 1400.

There is no evidence suggesting the presence of a DP in Old English. In Old English, we can find examples of bare NPs in which determiners would be required in Present-day English:

- (5) Her Martianus and Valentinus on-fengon rice  
Here Mauricius and Valentinian seized kingdom

(AS. Chronicle Parker MS, from Sweet 1953: 73)

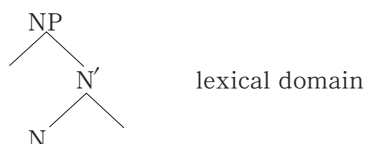
‘At this point Mauricius and Valentinian seized the kingdom’

A more decisive piece of evidence for the absence of a DP comes from the fact that the syntactic phenomena involving a DP are not observed in Old English texts. For instance, I would like to point out the absence of reflexive binding in Old English. In Old English, personal pronouns were used as anaphors and consequently, the meaning of the sentence “He killed him” was indeterminate about whether the object referred to is the subject or not. Since a D-system is the locus of binding properties of nominals and pronouns, this absence follows if we assume the lack of a D-system in Old English.

In the absence of a D-system, the task of identifying the referentiality of a nominal is taken care of by morphological case on the head nouns in Old English. Case affixes attached to head nouns can bind the Referential role. See Osawa (2017).

By the early Middle English period many Old English inflectional distinctions were lost. Morphological case could not perform the task of identifying the Referential role of nouns and turning them into arguments any more. The thematically motivated case system decayed, and subsequently a functional D-system developed to do the same job in English. The demise of morphological case progressed to a considerable extent during the Middle English period. The Old English demonstrative *se* (the masculine nominative, singular form) was replaced by the form *þe* around 950. The nominative masculine *se* and feminine *seo* had become *þe* in most regions of England by 1300. The new form *þe* came to be used as the invariable definite article *the* about 1400.

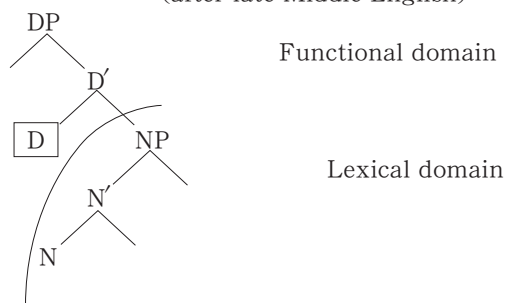
- (6) a. the structure of an NP (Old English)





## b. the structure of a DP

(after late Middle English)



As shown above, in Old English, a nominal phrase is an NP, a projection of a noun, which constitutes lexical categories only. After Middle English, one more projection has appeared over the lexical NP domain over time. This new projection is a DP where the functional category D is its head. The space which accommodates a D in the above tree is a D-head.

As the use of determiners has become obligatory in Present-day English (cf. Gelderen 1993, 2000), this space has become a permanent position in the nominal phrase. That is, this space has become a D head.

## Chapter 4 Primary versus secondary grammaticalization

The grammaticalization I have discussed in the previous chapter is the primary grammaticalization, if we assume the existence of two stages of grammaticalization. In this chapter, I will expand the focus of discussion to both stages of grammaticalization.

### 4.1. Primary grammaticalization

As touched upon above, grammaticalization is usually assumed to be a process by which lexical words change into function words (Hopper and Traugott 2003). This view seems to be accepted by many grammaticalization theorists. Hopper and Traugott (2003: 107) state that when a form undergoes grammaticalization from a lexical to a grammatical form, it tends to lose the morphological and syntactic properties that would identify it as a full member of one of the major grammatical categories like noun or verb, i.e. our lexical categories. In its most extreme form such a change results in a cline of categoriality, statable as:

(7) major category (>intermediate)>minor category

(Hopper and Traugott 2003: 107)

Their minor categories are auxiliary verbs, prepositions, conjunctions, demonstratives and perhaps others. These minor categories are very close to functional categories in the generative framework, although they do not treat tense as a category, unlike the generativists. Perhaps, their most important assertion is the following (Hopper and Traugott, 2003: 107):

- (8) Given the theory of unidirectionality, it can be hypothesized that diachronically all minor categories have their origin in major categories.

Hopper and Traugott (2003: 107) give *while* as a clear example of this category shift: historically, *while* was a noun (OE *hwil*) meaning a length of time. Later *while* diverged from this original function as a noun, and became grammaticalized as a signal of temporal organization. In short, in the previous studies grammaticalization is defined as a process of category change.

## 4.2. Secondary grammaticalization

In the previous section, it was pointed out that the primary grammaticalization is defined as a process of category change in previous studies.

Their definitions of secondary grammaticalization are in a similar vein. Although the term “secondary grammaticalization” attracts the interest of some researchers (cf. Breban 2014), exhaustive discussions on the exact nature of “secondary grammaticalization” are not yet known.

The notion of secondary grammaticalization dates back to Kuryłowicz (1975 [1965]: 52):

- (9) Grammaticalization consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status.

The introduction of the term “secondary grammaticalization” motivates a distinction between primary grammaticalization (the initial stage), and secondary grammaticalization, which is supposed to be the further development of already grammaticalized elements (Traugott 2010: 272). This choice of terminology adds a directionality to the process, assuming that secondary grammaticalization follows primary grammaticalization and affects items that have undergone primary grammaticalization. As Givón (1991) argues, the term “secondary grammaticalization” necessarily presupposes the primary or first grammaticalization and the directionality of grammaticalization. That is, the primary grammaticalization goes first, and the secondary one follows.

The fundamental question to ask here is “what is secondary grammaticalization?” Two different definitions of secondary grammaticalization are now found, depending on different traditions. Givón (1991: 305), who coined the term secondary grammaticalization, takes a morpho-syntactic perspective on grammaticalization and then defines secondary grammaticalization as the reanalysis of markers of one syntactic category into another. “The rise of great many morpho-syntactic patterns can only be understood as a process of *secondary grammaticalization* (Givón 1991: 305).” He continues: “For example, *past tense* morphemes seldom arise directly, but rather as reanalysis of either the perfect or perfective aspects. ...*Nominative* case-markers seldom arises (*sic*) directly, but most often as reanalysis of either the genitive or the ergative” (Givón 1991: 305).

Meanwhile, Hopper and Traugott (2003: 91) define secondary grammaticalization as the change from one grammatical meaning to a more grammatical one, such as the development

from the temporal to concessive conjunctive meaning of *while*.

As observed above, most discussions are semantic in nature except Givón (1991), and the essential difference between “primary” and “secondary” is not yet clear. This raises serious questions: how can we assess that one meaning is “more” grammatical than another one (Brinton and Traugott 2005: 147–150) and more fundamentally, what is a more grammatical meaning?

I summarize their discussions as follows:

- (10) (a) At the initial stage of grammaticalization, a certain lexical element X is grammaticalized, that is, X changes its original category C1 (= a lexical category) to C2 (a functional category) by losing some properties that identify X as C1, which is the primary grammaticalization; and (b) next, i.e. at the secondary stage, this new X loses more properties and is more grammaticalized, which is the secondary grammaticalization.

The changes involved in these grammaticalization processes all happen to the same element X or its successor. Hence, the grammaticalization is a developmental process of a certain element X. If I am allowed to use metaphor, their notion of grammaticalization is a “life story” of one lexical item.

The processes described above correctly capture some nature of grammaticalization: a shift from lexical to grammatical status as primary grammaticalization and a shift from grammatical to more grammatical status as secondary grammaticalization. However, this explanation fails to capture an important aspect of the secondary grammaticalization. Based on the discussions developed so far in this paper, we can conclude that the secondary grammaticalization takes place after the primary grammaticalization. This time gap is a fact of which we should take notice of.

If I draw a picture using my framework, the items which are involved in the secondary grammaticalization are “free riders”, which are grammaticalized due to the contributors. The lexical elements that contribute to creating a new functional space in the structure are contributors. That is, contributors cause the primary grammaticalization.

I argue that the contributors in the DP emergence grammaticalization are the demonstratives *se/seo* and the free rider is the numeral *an* ‘one’ in Old English.

#### 4.3. Contributors and free riders in grammaticalization

I have introduced two notions relevant to grammaticalization: contributor and free rider. As we have seen, two articles, the definite and indefinite articles in Present-day English, had ancestors in Old English. I argue that those ancestors contributed differently to the grammaticalization process in question (i.e. the emergence of a DP). One is a hard worker, hence a contributor, and the other is a free rider.

A contributor triggers a given change or contributes to the change, while “free riders” (Zwicky 1970) are grammaticalized thanks to the contributor. There are differences between these two participants in the degree of their contribution to grammaticalization. I argue that this

difference in contribution is related to the distinction between primary and secondary grammaticalization.

Let me explain the term “free rider”. The term “free ride” is ascribed to Zwicky (1970); however, although some meaning is shared, I use this term differently from Zwicky’s sense. A free rider means “originally: a person who rides a train, a bus, etc., without having paid for it (when others have). Now chiefly: a person who, or organization which, benefits (or seeks to benefit) in some way from the effort of others, without making a similar contribution (OED 2).”

I claim that Present-day English indefinite article *a/an* is a free rider in this latter sense. The indefinite article *a/an* appeared later because the indefinite article *a/an* became an article thanks to the definite article *the*.

#### 4.4. Secondary grammaticalization: the emergence of the indefinite article *a/an* in English

In the previous sections, I have described the emergence of a DP, i.e. the emergence of the definite article *the*, as an instantiation of primary grammaticalization. In this section, the emergence of the indefinite article *a/an* will be shown to be an example of secondary grammaticalization, based on Osawa (2017).

In Present-day English, there are two articles, definite *the* and indefinite *a/an*. There are marked asymmetries between the definite and indefinite articles in terms of semantics, distribution and diachrony.

First, compared with the definite determiner, the semantic role of the indefinite article in the Present-day English determiner system is obscure. Without the indefinite article, a noun phrase can convey an indefinite reading, as the example below shows:

- (11) I bought three books this morning. (Lyons 1999: 33)

The indefinite article makes less of a semantic contribution than the definite article *the*. It is not implausible to claim that the indefinite article *a/an* has no inherent meaning except ‘one’ and does not play much of a role in the Present-day English determiner system (cf. Crisma 2011).

Second, there is an asymmetry quantitatively that languages may have a definite, but not an indefinite article. According to *The World Atlas of Language Structures Online* (Dryer and Haspelmath 2013), the number of languages which have a definite word distinct from demonstratives is 216, while 102 languages have an indefinite word distinct from ‘one’ (i.e. numeral). The number of languages which have both distinct definite and indefinite articles is 55, while the number of languages which have neither definite nor indefinite articles is 198.

Third, I would like to point out the diachronic asymmetry. It is widely known that the indefinite article *a/an* appeared later than the definite article *the* in the history of English. This is a phenomenon to be observed in the case of other languages. For example, in German the definite article emerged noticeably earlier than the indefinite article (Abraham 1997: 59). We can safely say that languages have acquired their syntactic determiner system in the order of definite and indefinite determiners cross-linguistically. That is, a definite determiner comes first, and an

indefinite determiner follows. In this way, there is a clear gap in the time of their appearance.

There are few previous studies examining the emergence of indefinite articles. As far as I know, surprisingly few studies have tried to answer the question of why an indefinite article appeared later than a definite article in English. Based on the previous arguments, I propose the following hypothesis (cf. Osawa 2017: 82):

- (12) The emergence of DPs was initiated by the ancestors of *the*, i.e. *se/seo*. The ancestor of the indefinite article *a/an*, the numeral *an*, did not contribute to this process of grammaticalization. Rather, the reason for its later emergence is that the rise of the indefinite article is parasitic on the presence of the definite article. The definite article emerged first: this is the primary grammaticalization and the indefinite article appeared due to the establishment of the definite article *the*.

My claim is supported by the data from *The York-Toronto-Helsinki Parsed Corpus of Old English Prose* (YCOE). Throughout the YCOE, the frequency of the numeral *an* is very low, while the frequency of *se/seo* is high:

- |      |                                  |     |                              |                  |
|------|----------------------------------|-----|------------------------------|------------------|
| (13) | Noun phrases using <i>se/seo</i> | vs. | noun phrases using <i>an</i> |                  |
|      | 93%                              | vs. | 7%.                          | (Osawa 2017: 82) |

I have claimed that the primary grammaticalization is the creation of a new space/position in a given structure. The demonstrative *se/seo*, which was frequently placed before a head noun in a nominal structure of Old English, created a new space. At first, the placing of *se/seo* before a noun was limited to cases in which *se/seo* was required semantically. That is, this created space served originally to indicate definiteness of the noun. However, the repeated occurrence of *se/seo* made the space before nouns look like a constant position. In due course, the space before a noun became a permanent position in the nominal phrase irrespective of meaning. This new space became a head position. i.e. a new functional head D. Once the space was established, a new item which was not particularly associated with definiteness could occupy the space. Hence, the numeral *an* could come into that space, staying there, and be grammaticalized in that place. The numeral *an*, which had the feature [+singular] only, was grammaticalized in that position and became a D head without making a substantial contribution. It became an article thanks to this created position.

## Chapter 5 Conclusion

In this paper, I have shown that grammaticalization progresses in two stages: primary and secondary grammaticalization. The primary grammaticalization means creating a functional space in a given structure. This space becomes a functional head in a given structure. I have proposed that grammaticalization should be defined as functional category emergence. This

grammaticalization is initiated by “contributors”, while there are other lexical items which exploit the primary grammaticalization. I call the latter “free riders.” I have taken up the emergence of a DP as an example. The lexical elements that contributed to creating a new functional space, i.e. a D, in the nominal structure are Old English demonstratives *se/seo*, i.e. the ancestor of *the*, while the Old English numeral *an* ‘one’, the ancestor of the indefinite article *a/an*, was a free rider, since this numeral did not contribute to creating a space. Rather, the numeral *an* was grammaticalized in the space which was created by the contributors. I call this type of grammaticalization secondary. The emergence of the indefinite article *a/an* is an instance of secondary grammaticalization. That is, contributors cause the primary grammaticalization, while free riders concern the secondary grammaticalization. The primary grammaticalization precedes the secondary one. This is why the indefinite article *a/an* appeared later than the definite article *the*. The difference between the primary and secondary grammaticalization accounts for the temporal gap in the appearance of the definite and indefinite articles in English.

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## Corpora

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